



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R01-OAR-2021-0353; FRL-8916-01-R1]

Air Plan Approval; Connecticut; 2015 Ozone NAAQS Interstate Transport Requirements

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Clean Air Act (CAA) requires each State Implementation Plan (SIP) to contain adequate provisions prohibiting emissions that will have certain adverse air quality effects in other states. The State of Connecticut made a submission to the Environmental Protection Agency (EPA) to address these requirements for the 2015 ozone National Ambient Air Quality Standards (NAAQS). EPA is proposing to approve the submission as meeting the requirement that each SIP contain adequate provisions to prohibit emissions that will significantly contribute to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state.

DATES: Written comments must be received on or before **[insert date 30 days after date of publication in the Federal Register]**.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R01-OAR-2021-0353 at <https://www.regulations.gov>, or via email to simcox.alison@epa.gov. For comments submitted at Regulations.gov, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. For either manner of submission, EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will

generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section.

For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit

<https://www.epa.gov/dockets/commenting-epa-dockets>. Publicly available docket materials are available at <https://www.regulations.gov> or at the U.S. Environmental Protection Agency, EPA Region 1 Regional Office, Air and Radiation Division, 5 Post Office Square – Suite 100, Boston, MA. EPA requests that if at all possible, you contact the contact listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection. The Regional Office’s official hours of business are Monday through Friday, 8:30 a.m. to 4:30 p.m., excluding legal holidays and facility closures due to COVID-19.

FOR FURTHER INFORMATION CONTACT: Alison C. Simcox, Air Quality Branch, U.S. Environmental Protection Agency, EPA Region 1, 5 Post Office Square - Suite 100, (Mail code 05-2), Boston, MA 02109 - 3912, telephone number: (617) 918-1684, email address: simcox.alison@epa.gov.

SUPPLEMENTARY INFORMATION:

Throughout this document whenever “we,” “us,” or “our” is used, we mean EPA.

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I. Background

On October 1, 2015, EPA promulgated a revision to the ozone NAAQS (2015 ozone NAAQS), lowering the level of both the primary and secondary standards to 0.070 parts per million (ppm).¹ Section 110(a)(1) of the CAA requires states to submit, within 3 years after promulgation of a new or revised standard, SIP submissions meeting the applicable requirements of section 110(a)(2).² One of these applicable requirements is found in section 110(a)(2)(D)(i)(I), otherwise known as the good neighbor provision, which generally requires SIPs to contain adequate provisions to prohibit in-state emissions activities from having certain adverse air quality effects on other states due to interstate transport of pollution. There are two so-called “prongs” within CAA section 110(a)(2)(D)(i)(I). A SIP for a new or revised NAAQS must contain adequate provisions prohibiting any source or other type of emissions activity within the state from emitting air pollutants in amounts that will significantly contribute to nonattainment of the NAAQS in another state (prong 1), or interfere with maintenance of the NAAQS in another state (prong 2). EPA and states must give independent significance to prong 1 and prong 2 when evaluating downwind air quality problems under CAA section 110(a)(2)(D)(i)(I).³

We note that EPA has addressed the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I) with respect to prior ozone NAAQS in several regional regulatory actions, including the Cross-State Air Pollution Rule (CSAPR), which addressed interstate transport with respect to the 1997 ozone NAAQS as well as the 1997 and 2006 fine particulate matter

¹ National Ambient Air Quality Standards for Ozone, Final Rule, 80 FR 65292 (October 26, 2015). Although the level of the standard is specified in the units of ppm, ozone concentrations are also described in parts per billion (ppb). For example, 0.070 ppm is equivalent to 70 ppb.

² SIP revisions that are intended to meet the applicable requirements of section 110(a)(1) and (2) of the CAA are often referred to as infrastructure SIPs and the applicable elements under section 110(a)(2) are referred to as infrastructure requirements.

³ See *North Carolina v. EPA*, 531 F.3d 896, 909-911 (D.C. Cir. 2008).

standards,⁴ the Cross-State Air Pollution Rule Update (CSAPR Update), and, most recently, the Revised CSAPR Update for the 2008 ozone NAAQS.^{5, 6}

Through the development and implementation of CSAPR and other regional rulemakings pursuant to the good neighbor provision,⁷ EPA, working in partnership with states, developed the following four-step interstate transport framework to address the requirements of the good neighbor provision for the ozone NAAQS: (1) identify downwind air quality problems; (2) identify upwind states that impact those downwind air quality problems sufficiently such that they are considered “linked” and therefore warrant further review and analysis; (3) identify the emissions reductions necessary (if any), applying a multi-factor analysis, to prevent linked upwind states identified in step 2 from contributing significantly to nonattainment or interfering with maintenance of the NAAQS at the locations of the downwind air quality problems; and (4) adopt permanent and enforceable measures needed to achieve those emissions reductions.

EPA has released several documents containing information relevant to evaluating interstate transport with respect to the 2015 ozone NAAQS. First, on January 6, 2017, EPA published a notice of data availability (NODA) with preliminary interstate ozone transport modeling with projected ozone design values (DVs) for 2023 using a 2011 base year platform, on which we requested public comment.⁸ In the NODA, EPA used the year 2023 as the analytic year for this preliminary modeling because that year aligns with the expected attainment year for

⁴ See 76 FR 48208 (August 8, 2011)

⁵ In 2019, the D.C. Circuit Court of Appeals remanded the CSAPR Update to the extent it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). *Wisconsin v. EPA*, 938 F.3d 303, 313 (D.C. Cir. 2019).

⁶ The Revised Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS, 86 FR 23054 (April 30, 2021), was signed by the EPA Administrator on March 15, 2021, and responded to the remand of the CSAPR Update, 81 FR 74504 (October 26, 2016), and the vacatur of a separate rule, the CSAPR Close-Out, 83 FR 65878 (December 21, 2018), by the D.C. Circuit. *Wisconsin v. EPA*, 938 F.3d 303 (D.C. Cir. 2019); *New York v. EPA*, 781 F. App'x. 4 (D.C. Cir. 2019).

⁷ In addition to the CSAPR rulemakings, other regional rulemakings addressing ozone transport include the NO_x SIP Call, 63 FR 57356 (October 27, 1998), and the Clean Air Interstate Rule (CAIR), 70 FR 25162 (May 12, 2005).

⁸ See Notice of Availability of the Environmental Protection Agency's Preliminary Interstate Ozone Transport Modeling Data for the 2015 Ozone National Ambient Air Quality Standard (NAAQS), 82 FR 1733 (January 6, 2017).

Moderate ozone nonattainment areas for the 2015 ozone NAAQS.⁹ On October 27, 2017, we released a memorandum (2017 memo) containing updated modeling data for 2023, which incorporated changes made in response to comments on the NODA, and noted that the modeling may be useful for states developing SIPs to address good neighbor obligations for the 2008 ozone NAAQS.¹⁰ On March 27, 2018, we issued a memorandum (March 2018 memo) noting that the same 2023 modeling data released in the 2017 memo could also be useful for identifying potential downwind air quality problems with respect to the 2015 ozone NAAQS at step 1 of the four-step interstate transport framework. The March 2018 memo also included the then newly available contribution modeling results to assist states in evaluating their impact on potential downwind air quality problems for the 2015 ozone NAAQS under step 2 of the interstate transport framework. EPA subsequently issued two more memoranda in August and October 2018, providing additional information to states developing good neighbor SIP submissions for the 2015 ozone NAAQS concerning, respectively, potential contribution thresholds that may be appropriate to apply in step 2 of the framework, and considerations for identifying downwind areas that may have problems maintaining the standard at step 1 of the framework.¹¹

On October 30, 2020, in the Notice of Proposed Rulemaking for the Revised CSAPR Update, EPA released and accepted public comment on updated 2023 modeling that used a 2016 emissions platform developed under the EPA/Multi-Jurisdictional Organization (MJO)/state

⁹ 82 FR 1733, 1735 (January 6, 2017).

¹⁰ See Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), October 27, 2017, available in the docket for this action or at <https://www.epa.gov/interstate-air-pollution-transport/interstate-air-pollution-transport-memos-and-notice>.

¹¹ See Analysis of Contribution Thresholds for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, August 31, 2018) (“August 2018 memo”), and Considerations for Identifying Maintenance Receptors for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, October 19, 2018, available in the docket for this action or at <https://www.epa.gov/airmarkets/memo-and-supplemental-information-regarding-interstate-transport-sips-2015-ozone-naaqs>.

collaborative project as the primary source for the base year and future year emissions data.¹² On March 15, 2021, EPA signed the final Revised CSAPR Update using the same modeling released at proposal.¹³ Although Connecticut relied on the modeling included in the March 2018 memo to develop its SIP submission as EPA had suggested, EPA now proposes to primarily rely on the updated and newly available 2016 base year modeling in evaluating these submissions. By using the updated modeling results, EPA is using the most current and technically appropriate information as the primary basis for this proposed rulemaking. EPA's independent analysis, which also evaluated historical monitoring data, recent DVs, and emissions trends, found that such information provides additional support and further substantiates the results of the 2016 base year modeling as the basis for this proposed rulemaking. Section III of this document and the Air Quality Modeling technical support document (TSD) included in the docket for this proposal contain additional detail on this modeling.¹⁴

In the CSAPR, CSAPR Update, and the Revised CSAPR Update, EPA used a threshold of one percent of the NAAQS to determine whether a given upwind state was "linked" at step 2 of the interstate transport framework and would, therefore, contribute to downwind nonattainment and maintenance sites identified in step 1. If a state's impact did not equal or exceed the one percent threshold, the upwind state was not "linked" to a downwind air quality problem, and EPA, therefore, concluded the state would not significantly contribute to nonattainment or interfere with maintenance of the NAAQS in the downwind states. However, if a state's impact equaled or exceeded the one percent threshold, the state's emissions were further

¹² See 85 FR 68964, 68981. The results of this modeling are included in a spreadsheet in the docket for this action. The underlying modeling files are available for public review in the docket for the Revised CSAPR Update (EPA-HQ-OAR-2020-0272).

¹³ See 86 FR 23054 at 23075, 23164 (April 30, 2021).

¹⁴ See "Air Quality Modeling Technical Support Document for the Revised Cross-State Air Pollution Rule Update," 86 FR 23054 (April 30, 2021), available in the docket for this action. This TSD was originally developed to support EPA's action in the Revised CSAPR Update, as relating to outstanding good neighbor obligations under the 2008 ozone NAAQS. While developed in this separate context, the data and modeling outputs, including interpolated design values for 2021, may be evaluated with respect to the 2015 ozone NAAQS and used in support of this proposal.

evaluated in step 3, considering both air quality and cost considerations, to determine what, if any, emissions might be deemed “significant” and, thus, must be eliminated under the good neighbor provision. EPA is proposing to rely on the one percent threshold (which is 0.70 ppb) for the purpose of evaluating Connecticut’s contribution to nonattainment or maintenance of the 2015 ozone NAAQS in downwind areas.

Several D.C. Circuit court decisions address the issue of the relevant analytic year for the purposes of evaluating ozone transport air-quality problems. On September 13, 2019, the D.C. Circuit issued a decision in *Wisconsin v. EPA*, remanding the CSAPR Update to the extent that it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). 938 F.3d 303, 313.

On May 19, 2020, the D.C. Circuit issued a decision in *Maryland v. EPA* that cited the *Wisconsin* decision in holding that EPA must assess the impact of interstate transport on air quality at the next downwind attainment date, including Marginal area attainment dates, in evaluating the basis for EPA’s denial of a petition under CAA section 126(b). *Maryland v. EPA*, 958 F.3d 1185, 1203-04 (D.C. Cir. 2020). The court noted that “section 126(b) incorporates the Good Neighbor Provision,” and, therefore, “EPA must find a violation [of section 126] if an upwind source will significantly contribute to downwind nonattainment at the *next downwind attainment deadline*. Therefore, the agency must evaluate downwind air quality at that deadline, not at some later date.” *Id.* at 1204 (emphasis added). EPA interprets the court’s holding in *Maryland* as requiring the Agency, under the good neighbor provision, to assess downwind air quality by the next applicable attainment date, including a Marginal area attainment date under CAA section 181 for ozone nonattainment.¹⁵ The Marginal area attainment date for the 2015

¹⁵ We note that the court in *Maryland* did not have occasion to evaluate circumstances in which EPA may determine that an upwind linkage to a downwind air quality problem exists at steps 1 and 2 of the interstate transport

ozone NAAQS is August 3, 2021.¹⁶ Historically, EPA has considered the full ozone season prior to the attainment date as supplying an appropriate analytic year for assessing good neighbor obligations. While this would be 2020 for an August 2021 attainment date (which falls within the 2021 ozone season running from May 1 to September 30), in this circumstance, when the 2020 ozone season is wholly in the past, it is appropriate to focus on 2021 to address good neighbor obligations to the extent possible by the 2021 attainment date. EPA does not believe it would be appropriate to select an analytical year that is wholly in the past, because the agency interprets the good neighbor provision as forward looking. *See* 86 FR 23054 at 23074; *see also Wisconsin*, 938 F.3d at 322. Consequently, in this proposal EPA will use the analytical year of 2021 to evaluate Connecticut's good neighbor obligation with respect to the 2015 ozone NAAQS.¹⁷

II. Connecticut Submittal

On December 6, 2018, Connecticut submitted a SIP revision addressing the CAA section 110(a)(2)(D)(i)(I) interstate transport requirements for the 2015 ozone NAAQS. Connecticut relied on the results of EPA's modeling for the 2015 ozone NAAQS contained in the March 2018 memo to identify downwind nonattainment and maintenance receptors that may be impacted by emissions from sources in Connecticut in the year 2023. These results indicate Connecticut's greatest impact on any potential downwind nonattainment or maintenance receptor would be 0.83 ppb in Suffolk County, New York.¹⁸ Based on the March 2018 memo, this was

framework by a particular attainment date, but for reasons of impossibility or profound uncertainty the Agency is unable to mandate upwind pollution controls by that date. *See Wisconsin*, 938 F.3d at 320. The D.C. Circuit noted in *Wisconsin* that upon a sufficient showing, these circumstances may warrant flexibility in effectuating the purpose of the good neighbor provision. Such circumstances are not at issue in the present proposal.

¹⁶ CAA section 181(a); 40 CFR 51.1303; Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 FR 25776 (June 4, 2018, effective Aug. 3, 2018).

¹⁷ EPA recognizes that by the time final action is taken with respect to this SIP submission, the 2021 ozone season will be wholly in the past. As discussed below, the available modeling information indicates that our analysis would not change even using 2023 as the analytic year. The 2023 modeling results are included in the "Ozone Design Values and Contributions Revised CSAPR Update.xlsx", included in the docket for this action.

¹⁸ EPA notes that the monitoring site ID for Suffolk County, New York is 361030002.

the only nonattainment or maintenance receptor for which Connecticut was projected in 2023 to contribute above the screening threshold of 0.70 ppb (one percent of the 2015 ozone NAAQS).

Connecticut noted in its December 2018 good neighbor submittal that “EPA had considered cost-effective only reductions that are available at a cost of less than \$1,400 per ton of emissions reduced. Connecticut’s emitters are currently required to adopt control measures at costs exceeding \$13,000 per ton (of NO_x).”¹⁹ Connecticut states that as it requires this high level of control of ozone precursor emissions, it has exhausted lower-cost emission reduction measures.

As evidence of this, Connecticut points to Regulations of Connecticut Agencies section 22a-174-22e(g) and its ozone attainment plan technical support document for the 2008 ozone NAAQS, which was submitted to EPA in August 2017 and documents the State’s ozone precursor emission reduction measures.

Connecticut concludes that it has met its good neighbor obligations for the 2015 ozone NAAQS because of the existing control measures that are in place.

III. EPA Evaluation of Connecticut’s Submittal

Connecticut’s SIP submission relies on analysis of the year 2023 to show whether it contributes to nonattainment or interferes with maintenance of the 2015 ozone NAAQS in any other state.²⁰ As explained in Section I of this proposal, EPA has conducted an updated analysis for the 2021 analytical year that is being used to evaluate Connecticut’s transport SIP submittal. Significantly, this new analysis shows that, in 2021, Connecticut is not projected to contribute to

¹⁹ EPA notes that the \$1,400 ton per year threshold stated by Connecticut is in reference to the cost per ton threshold used in the CSAPR Update, which was used to evaluate available cost-effective EGU controls under the 2008 ozone NAAQS of 0.075 ppm. *See* 81 FR 74504 (October 26, 2016).

²⁰ We recognize that Connecticut and other states may have been influenced by EPA’s 2018 guidance memos (issued prior to the *Wisconsin* and *Maryland* decisions) in making good neighbor submissions that relied on EPA’s modeling of 2023. When there are intervening changes in relevant law or legal interpretation of CAA requirements, states are generally free to withdraw, supplement, and/or re-submit their SIP submissions with new analysis (in compliance with CAA procedures for SIP submissions). While Connecticut has not done this, as explained in this section, the independent analysis EPA has conducted at its discretion confirms that the state’s submission in this instance is ultimately approvable.

any potential downwind nonattainment or maintenance receptor, including the monitor in Suffolk County, New York, above the screening threshold of 0.70 ppb (one percent of the 2015 ozone NAAQS). While EPA has focused its analysis in this document on the year 2021, modeling data in the record for years 2023 and 2028 confirm that no new linkages to downwind receptors are projected for Connecticut in later years. This is not surprising as it is consistent with an overall, long-term downward trend in emissions from this state.

As explained in Section I of this document, in consideration of the holdings in *Wisconsin* and *Maryland*, EPA's analysis relies on 2021 as the relevant attainment year for evaluating Connecticut's good neighbor obligations with respect to the 2015 ozone NAAQS using the four-step interstate transport framework. In step 1, we identify locations where the Agency expects there to be nonattainment or maintenance receptors for the 2015 8-hour ozone NAAQS in the 2021 analytic year. Where EPA's analysis shows that an area or site does not fall under the definition of a nonattainment or maintenance receptor, that site is excluded from further analysis under EPA's four step interstate transport framework. For areas that are identified as a nonattainment or maintenance receptor in 2021, we proceed to the next step of our four-step framework by identifying the upwind state's contribution to those receptors.

EPA's approach to identifying ozone nonattainment and maintenance receptors in this action is consistent with the approach used in previous transport rulemakings. EPA's approach gives independent consideration to both the "contribute significantly to nonattainment" and the "interfere with maintenance" prongs of CAA section 110(a)(2)(D)(i)(I), consistent with the D.C. Circuit's direction in *North Carolina v. EPA*.²¹

For the purpose of this proposal, EPA identifies nonattainment receptors as those monitoring sites that are projected to have average design values that exceed the NAAQS and

²¹ See *North Carolina v. EPA*, 531 F.3d 896, 910-11 (D.C. Cir. 2008) (holding that EPA must give "independent significance" to each prong of CAA section 110(a)(2)(D)(i)(I)).

that are also measuring nonattainment based on the most recent monitored design values. This approach is consistent with prior transport rulemakings, such as CSAPR Update, where EPA defined nonattainment receptors as those areas that both currently monitor nonattainment and that EPA projects will be in nonattainment in the future analytic year.²²

In addition, in this proposal, EPA identifies a receptor to be a “maintenance” receptor for purposes of defining interference with maintenance, consistent with the method used in the CSAPR and upheld by the D.C. Circuit in *EME Homer City Generation, L.P. v. EPA*, 795 F.3d 118, 136 (D.C. Cir. 2015).²³ Specifically, monitoring sites with a projected maximum design value in 2021 that exceeds the NAAQS are considered maintenance receptors. EPA’s method of defining these receptors takes into account both measured data and reasonable projections based on modeling analysis.

Recognizing that nonattainment receptors are also, by definition, maintenance receptors, EPA often uses the term “maintenance-only” to refer to receptors that are not also nonattainment receptors. Consistent with the methodology described above, monitoring sites with a projected maximum design value that exceeds the NAAQS, but with a projected average design value that is below the NAAQS, are identified as maintenance-only receptors. In addition, those sites that are currently measuring ozone concentrations below the level of the applicable NAAQS but are projected to be nonattainment based on the average design value and that, by definition, are projected to have a maximum design value above the standard are also identified as maintenance-only receptors.

To evaluate future air quality in steps 1 and 2 of the interstate transport framework, EPA is using the 2016 and 2023 base case emissions developed under the EPA/MJO/state

²² See 81 FR 74504 (October 26, 2016). Revised CSAPR Update also used this approach. See 86 FR 23054 (April 30, 2021). This same concept, relying on both current monitoring data and modeling to define nonattainment receptor, was also applied in CAIR. See 70 FR 25241 (January 14, 2005); see also *North Carolina*, 531 F.3d at 913-14 (affirming as reasonable EPA’s approach to defining nonattainment in CAIR).

²³ See 76 FR 48208 (August 8, 2011). CSAPR Update and Revised CSAPR Update also used this approach. See 81 FR 74504 (October 26, 2016) and 86 FR 23054 (April 30, 2021).

collaborative emissions modeling platform project as the primary source for base year and 2023 future year emissions data for this proposal.²⁴ Because this platform does not include emissions for 2021, EPA developed an interpolation technique based on modeling for 2023 and measured ozone data to determine ozone concentrations for 2021. To estimate average and maximum design values for 2021, EPA first performed air quality modeling for 2016 and 2023 to obtain design values in 2023. The 2023 design values were then coupled with the corresponding 2016 measured design values to estimate design values in 2021. Details on the modeling, including the interpolation methodology, can be found in the Air Quality Modeling TSD, found in the docket for this proposal.

To quantify the contribution of emissions from specific upwind states on 2021 8-hour design values for the identified downwind nonattainment and maintenance receptors, EPA first performed nationwide, state-level ozone source apportionment modeling for 2023. The source apportionment modeling provided contributions to ozone from precursor emissions of anthropogenic nitrogen oxides (NO_x) and volatile organic compounds (VOCs) in each state, individually. The modeled contributions were then applied in a relative sense to the 2021 average design value to estimate the contributions in 2021 from each state to each receptor. Details on the source apportionment modeling and the methods for determining contributions in 2021 are in the Air Quality Modeling TSD in the docket.

The 2021 design values and contributions were examined to determine if Connecticut contributes at or above the threshold of one percent of the 2015 ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor. The data²⁵ indicate that the highest

²⁴ See 86 FR 23054 (April 30, 2021). The results of this modeling are included in a spreadsheet in the docket for this action. The underlying modeling files are available for public access in the docket for the Revised CSAPR Update (EPA-HQ-OAR-2020-0272).

²⁵ The data are given in the “Air Quality Modeling Technical Support Document for the Revised Cross-State Air Pollution Rule Update” and “Ozone Design Values and Contributions Revised CSAPR Update.xlsx,” which are included in the docket for this action.

contribution in 2021 from Connecticut to a downwind nonattainment or maintenance receptor is 0.44 ppb to a nonattainment receptor in Richmond County, New York (monitoring site 360850067). The data also show modeled ozone contributions from Connecticut to the design values of a larger set of monitoring sites (independent of attainment status) and indicate that the highest projected contribution in 2021 from Connecticut to any of these sites is 3.51 ppb to Kent County in Rhode Island (monitoring site 440030002; #378 on the Design Values and Contributions spreadsheet). While Connecticut's modeled contribution to the Kent County monitor exceeds one percent of the 2015 ozone NAAQS, EPA's analysis at step 1 does not identify the Kent County monitor as a downwind area that may have problems maintaining the 2015 ozone NAAQS. The Kent County monitor's projected average design value in 2021 is 65.5 ppb. The updated modeling for 2021 also shows that Connecticut is no longer projected to be linked to the Suffolk County monitoring site, since this monitor is no longer projected to be a nonattainment or maintenance receptor.

EPA also analyzed ozone precursor emissions trends in Connecticut to support the findings from the air quality analysis. In evaluating emissions trends, we first reviewed the information submitted by the state and then reviewed additional information available to the Agency. We focused on state-wide emissions of NO_x and VOCs.²⁶ Emissions from mobile sources, electric generating units ("EGUs"), industrial facilities, gasoline vapors, and chemical solvents are some of the major anthropogenic sources of ozone precursors. This evaluation looks at both past emissions trends, as well as projected trends.

As shown in Table 1, for Connecticut, annual total NO_x and VOC emissions are projected to decline between 2016 and 2023 by 31 percent and 2 percent, respectively. The projected reductions are a result of the implementation of existing control programs that will continue to

²⁶ This is because ground-level ozone is not emitted directly into the air but is formed by chemical reactions between ozone precursors, chiefly NO_x and VOCs, in the presence of sunlight. *See* 86 FR 23054, , 23063.

decrease NO_x and VOC emissions in Connecticut, as indicated by EPA's most recent 2021 and 2023 projected emissions.

As shown in Table 2, on-road and nonroad mobile source emissions collectively comprise a large portion of Connecticut's total anthropogenic NO_x and VOCs. For example, in 2019, NO_x emissions from mobile sources in Connecticut comprised 62 percent of total NO_x emissions and 38 percent of total VOC emissions.

The large decrease in NO_x emissions between 2016 emissions and projected 2023 emissions in Connecticut is primarily driven by reductions in emissions from on-road and nonroad mobile sources. EPA projects that both VOC and NO_x emissions will continue declining to 2023 as newer vehicles and engines that are subject to the most recent, stringent mobile source standards replace older vehicles and engines.²⁷

In summary, based on the projected downward trend in projected future emissions trends, in combination with the historical decline in actual emissions, there is no evidence to suggest that the overall emissions trend demonstrated in Table 2 would suddenly reverse or spike in 2021 compared to historical emissions levels or those projected for 2023. Further, there is no evidence that the projected ozone precursor emissions trends beyond 2021 would not continue to show a decline in emissions. In addition, EPA followed its normal practice of including in our modeling only changes in NO_x or VOC emissions that result from final regulatory actions. Any potential changes in NO_x or VOC emissions that may result from possible future or proposed regulatory actions are speculative.

²⁷ Tier 3 Motor Vehicle Emission and Fuel Standards (79 FR 23414, April 28, 2014); Mobile Source Air Toxics Rule (MSAT2) (72 FR 8428, February 26, 2007), Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements (66 FR 5002, January 18, 2001); Clean Air Nonroad Diesel Rule (69 FR 38957, June 29, 2004); Locomotive and Marine Rule (73 FR 25098, May 6, 2008); Marine Spark-Ignition and Small Spark-Ignition Engine Rule (73 FR 59034, October 8, 2008); New Marine Compression-Ignition Engines at or Above 30 Liters per Cylinder Rule (75 FR 22895, April 30, 2010); and Aircraft and Aircraft Engine Emissions Standards (77 FR 36342, June 18, 2012).

This downward trend in emissions in Connecticut adds support to the air quality analyses presented above for the state and indicates that the contributions from emissions from sources in Connecticut to ozone receptors in downwind states will continue to decline and remain below one percent of the NAAQS.

Table 1. Annual Emissions of NO_x and VOCs from Anthropogenic Sources in Connecticut (tons per year)²⁸

	2011	2012	2013	2014	2015	2016	2017	2018	2019	Projected 2021	Projected 2023
CT NO_x	72,815	69,540	66,264	62,989	57,791	48,729	46,285	43,751	40,219	35,033	33,412
CT VOCs	79,806	80,621	81,435	82,250	74,313	62,658	57,777	56,137	54,498	63,354	61,110

Table 2. Annual Emissions of NO_x and VOCs from On-road and Nonroad Vehicles in Connecticut (tons per year)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	Projected 2021	Projected 2023
CT NO_x	54,371	50,956	47,540	44,124	40,040	32,090	30,760	27,878	24,995	19,128	16,935
CT VOCs	38,749	37,166	35,583	33,999	30,837	23,957	23,851	22,212	20,573	17,398	16,229

Thus, EPA’s air quality and emissions analyses indicate that emissions from Connecticut will not significantly contribute to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state in 2021.

IV. Proposed Action

²⁸ The annual emissions data for the years 2011 through 2019 were obtained from EPA’s National Emissions Inventory web site: <https://www.epa.gov/air-emissions-inventories/air-pollutant-emissions-trends-data>. Note that emissions from miscellaneous sources are not included in the state totals. The emissions for 2021 and 2023 are based on the 2016 emissions modeling platform. See “2005 thru 2019 + 2021_2023_2028 Annual State Tier 1 Emissions_v3” and the Emissions Modeling TSD in the docket for this action.

As discussed in Section II, Connecticut concluded that it has met its good neighbor obligations for the 2015 ozone NAAQS based on existing control measures that are in place. EPA conducted an independent analysis for the analytic year 2021 based on more recent data and updated modeling. EPA's evaluation of measured and monitored data, including interpolating values to generate a reasonable expectation of air quality and contribution values in 2021, is discussed in Section III. Based on the updated modeling and analysis, EPA concluded that emissions from sources in the state will not contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state. This conclusion remains true for later modeled years 2023 and 2028 in the updated modeling EPA is relying on. Therefore, we propose to approve the Connecticut submission as meeting the requirements of CAA section 110(a)(2)(D)(i)(I).

EPA is soliciting public comments on this document. These comments will be considered before taking final action. Interested parties may participate in the Federal rulemaking procedure by submitting written comments to this proposed rule by following the instructions listed in the **ADDRESSES** section of this *Federal Register* document.

V. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this proposed action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);

- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: August 24, 2021.

Deborah Szaro,
Acting Regional Administrator,
EPA Region 1.

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